

Program Process

California Advanced Homes Program

Pacific Gas and Electric Territory

Administered by TRC



Agenda

1. CAHP Score
2. Enrollment Process

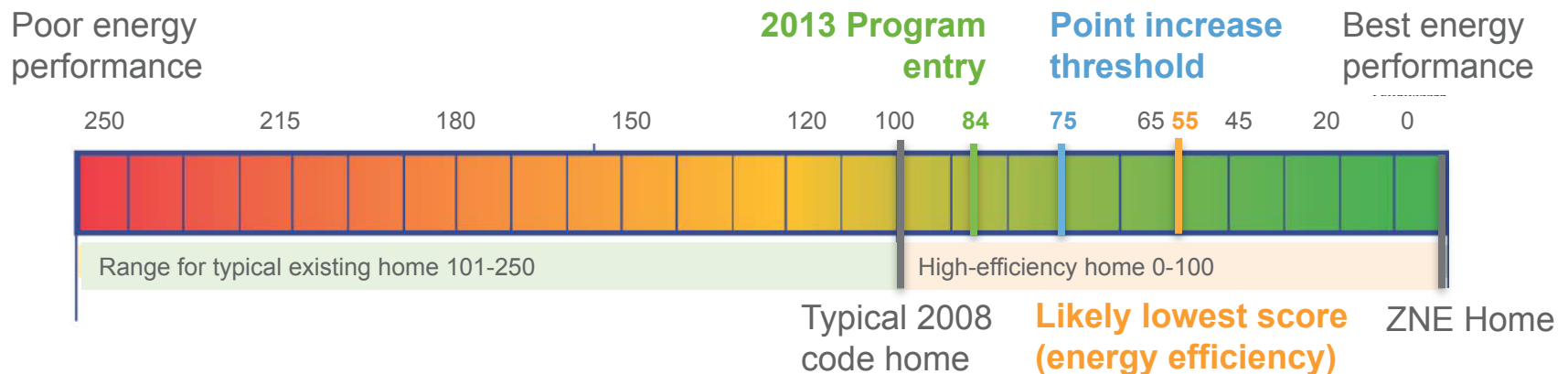


Redesign for 2013 Title 24 **CAHP Score**



New Title 24 - New Program

CAHP scores replace percent better than code



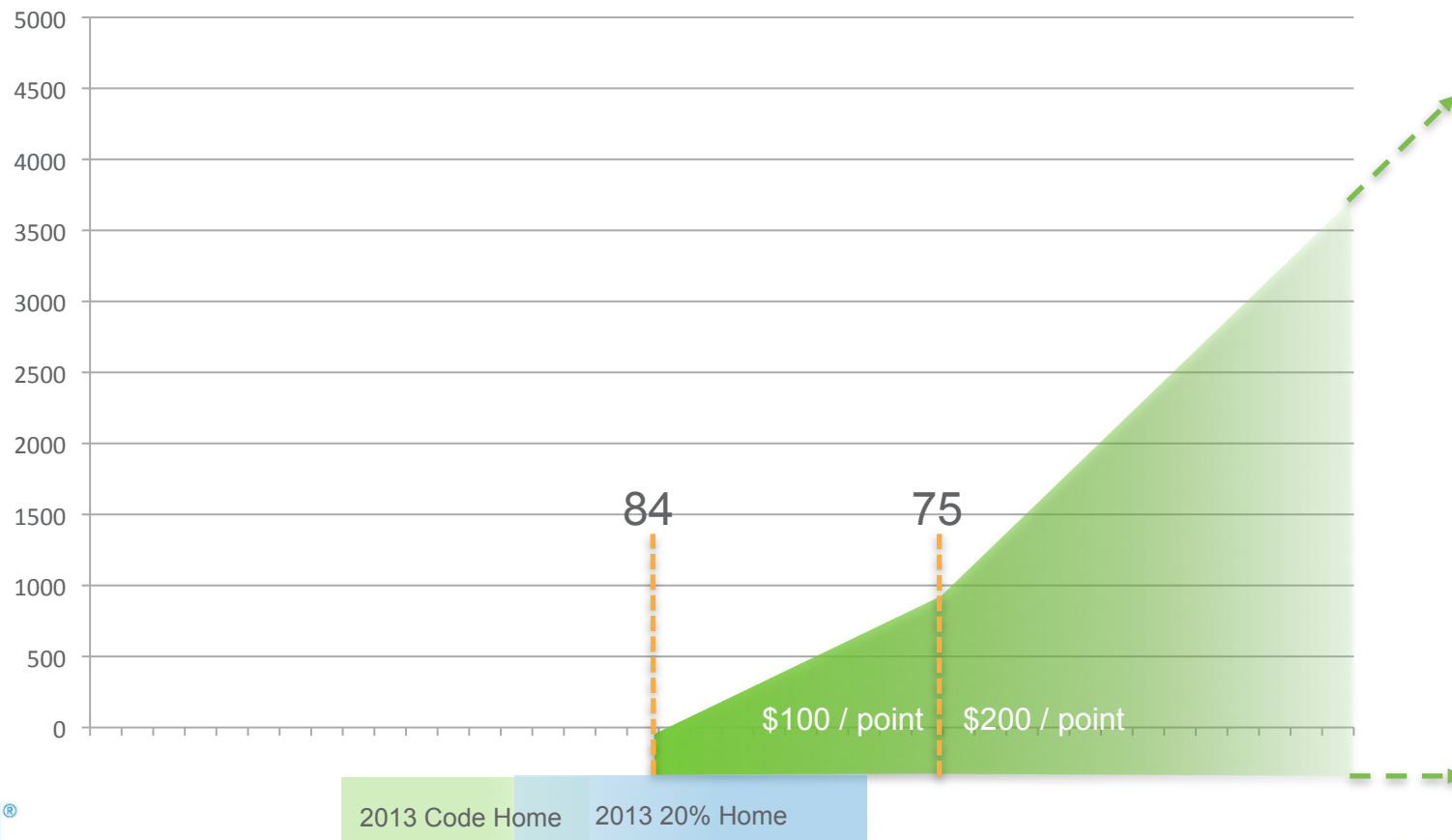
- Similar to the RESNET HERS Score (0-250)
- A lower score equates to better performance and a higher incentive

CAHP Incentive Structure

Per home:

- \$300 for program entry CAHP Score of 84
- \$100 for each point down to 75
- \$200 for each point thereafter

Average incentive per home is expected to be around \$1,000



CAHP Incentive Structure

Final CAHP Score		Incentive Amount		Final CAHP Score		Incentive Amount		Final CAHP Score		Incentive Amount
84	=	\$300		72	=	\$1,800		60	=	\$4,200
83	=	\$400		71	=	\$2,000		59	=	\$4,400
82	=	\$500		70	=	\$2,200		58	=	\$4,600
81	=	\$600		69	=	\$2,400		57	=	\$4,800
80	=	\$700		68	=	\$2,600		56	=	\$5,000
79	=	\$800		67	=	\$2,800		55	=	\$5,200
78	=	\$900		66	=	\$3,000		54	=	\$5,400
77	=	\$1,000		65	=	\$3,200		53	=	\$5,600
76	=	\$1,100		64	=	\$3,400		52	=	\$5,800
75	=	\$1,200		63	=	\$3,600		51	=	\$6,000
74*	=	\$1,400		62	=	\$3,800		50	=	\$6,200
73	=	\$1,600		61	=	\$4,000		49	=	\$6,400

**After a CAHP Score falls below 75, \$200 per point reduction is added*



2014 CAHP Project Examples

Location	San Jose (CZ 4)	Riverside (CZ 10)	San Diego (CZ 7)	Fresno (CZ 13)
Building Type	2,100 default	2,100 default	2,100 default	2,100 default
CAHP Score	81	69	80	55
Annual Energy Use (kTDV)	154,749	152,712	116,970	165,858
EE Measures	2013 Prescriptive, Plus:	2013 Prescriptive, Plus:	2013 Prescriptive, Plus:	2013 Prescriptive, Plus:
Envelope	<ul style="list-style-type: none"> • QII 	<ul style="list-style-type: none"> • QII • R-21 wall cavities • U28/S22 windows • 3.0 ACH50 blower door • Cool Roof (0.90 emit.) 	<ul style="list-style-type: none"> • QII 	<ul style="list-style-type: none"> • QII • R-21 wall cavities • R-8 ext wall insulation • R-10 24" slab edge insulation • 24" OC stud spacing • R-13 roof deck insulation • U28/S22 windows • 1.0 ACH50 blower door • Cool roof (0.90 emit.)
HVAC	<ul style="list-style-type: none"> • SEER 14/EER 12, 84% AFUE 	<ul style="list-style-type: none"> • SEER 14/EER 12, 84% AFUE 	-	<ul style="list-style-type: none"> • SEER 18/EER 14, 95% AFUE
DHW	<ul style="list-style-type: none"> • 0.82 EF tankless 	-	<ul style="list-style-type: none"> • 0.97 EF tankless • All pipes insulated 	<ul style="list-style-type: none"> • 0.97 EF Tankless • All pipes insulated
Other	-	<ul style="list-style-type: none"> • R-8 ducts 	-	<ul style="list-style-type: none"> • R-8 ducts • Ducts in conditioned space
Incentive*	\$500	\$2,300	\$600	\$5,100

**Individual results may vary considerably*



CAHP Incentive Bonuses

Future Code Preparation – 5 CAHP points

–Must meet five measures, explained on the [CAHP website](#)

(Measures include: High Performance Attic/Ducts in Conditioned Space & R21+4 walls/performance equivalent)

DOE Zero Energy Ready Home – 3 CAHP points

–www.energy.gov/eere/buildings/zero-energy-ready-home

Low Energy Use bonus – 5 CAHP points

–Use is less than 100,000 kTDV/year

Ultra Low Energy Use bonus – 5 CAHP points

–Use is less than 60,000 kTDV/year



Calculate Your Score

Automatic: energy model outputs include Incentive Report

Manual: Use the Score and Incentive Tool (available on the cahp-pge.com website>Program> [CAHP Score & Incentive Tool](#))

Compliance %	25.2%
Initial CAHP Score	75
CAHP Bonus Points	0
Final CAHP Score	75
CAHP SF Incentive \$	1,200
Total Annual KTDV	261,575.68

ABOUT THE PROGRAM

The 2014-15 California Advanced Homes Program serves to encourage residential new construction to meet two visionary goals set forth by the California Public Utilities Commission (CPUC). The first is to help builders prepare for future code changes and build homes above code and ahead of the curve. The second is for all new homes to reach Zero Net Energy (ZNE) by 2020. Participation is open to single-family, low-rise and high-rise multi-family residential new construction built in an IOU service area. The CAHP is a comprehensive residential new construction concept with a cross-cutting focus on sustainable design and construction, green building practices, energy efficiency, and emerging technologies. Through a combination of education, design assistance and financial support, the CAHP works with building and related industries to exceed compliance with the California Code of Regulations, Title 24, Part 6, 2013 Building Energy Efficiency Standards for Residential and Nonresidential Buildings (Standards), to prepare builders for changes to the Standards and to create future pathways beyond compliance and traditional energy savings objectives. The CAHP is designed for the performance-based approach for compliance. Compliance with the 2013 Title 24 Standards must be demonstrated through the performance method utilizing approved California Energy Commission (CEC) compliance software. The documents must be created and signed by a Certified Energy Analyst (CEA). Compliance must be demonstrated for each building as a whole and may not group unrelated or detached buildings together. For complete program details, [download the Program Handbook](#).

PROGRAM NEWS

Information on the 2014 California Advanced Homes Program is now available! **This PDF document** explains the new program concept for energy consultants and builders.

CAHP Score & Incentive Tool

To help Title 24 consultants prepare for the program changes that will start in July with the 2013 Energy Code, Matthew Christie built a **CAHP Score and Incentive Tool** that takes the standard output from CBECC-Res and generates CAHP details for the new program. The directions are simple: just enter the CBECC-Res TDV outputs straight from its Review Analysis Results screen. You only need to enter the data into the green and grey shaded cells. Please be sure the read and

PG&E CAHP RESOURCES

- Application
- Process Timeline
- IRF Checklist
- Adjustment Application
- Adjustment Checklist

Contact Our Staff

Matthew Christie
Program Manager
mchristie@trcsolutions.com

Kevin Robison
Plan Review Manager
krobison@trcsolutions.com

Michelle Waffle-Otero
Program Participation Coordinator
mwaffle@trcsolutions.com

Deborah Hayman
Program Application Coordinator
dhayman@trcsolutions.com

Questions?



Next up: Enrollment process for the 2014 program





Enrollment Process **2014 CAHP**



2014 Program Participation Eligibility

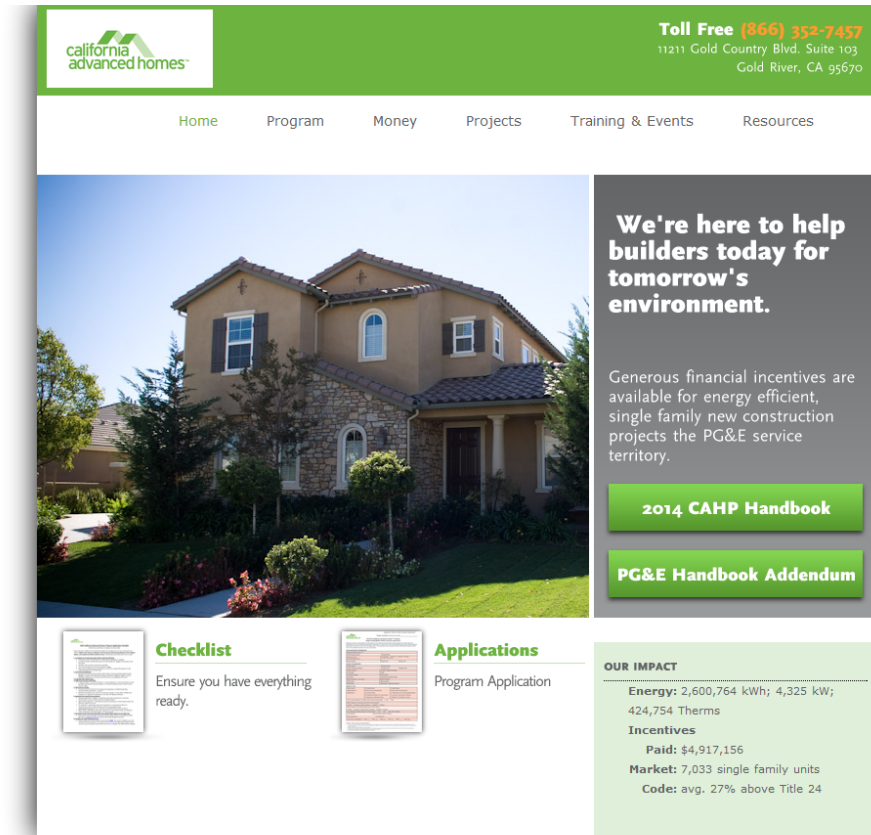
Permitting under 2013 Title 24 standards	Permits must be issued July 1, 2014 or after
PG&E service area for both gas and electric for full incentives	If only gas or electricity (not both) the project may receive partial incentives
New construction	Gut rehabs down to the studs with all new equipment may apply
Single family homes, duplexes	Townhomes with air spaces and no shared walls may apply
Minimum CAHP Score of 84	See the CAHP Program Handbook for additional eligibility requirements



CAHP – Complete Application Package

1. 2014 CAHP Application
2. PDF construction plans
3. Lot list (production homes)
4. Site map with North arrow
5. PG&E service verification
6. Title 24 forms and input files
7. Equipment specifications
8. Registry sharing
9. Enrollment survey*

**Completed one time per builder.*



CAHP– Enrollment Process

Steps to get started and best practices:

- 1.Download application, handbook, and checklist from the TRC CAHP website:
www.cahp-pge.com
- 2.Submit entire application package (see [checklist](#)) as soon as possible to allow time for review.
- 3.Clearly label all documents
- 4.Use highlighter or circle the exact model and efficiency of planned installations on all specification sheets.
- 5.Maintain communication with your project team

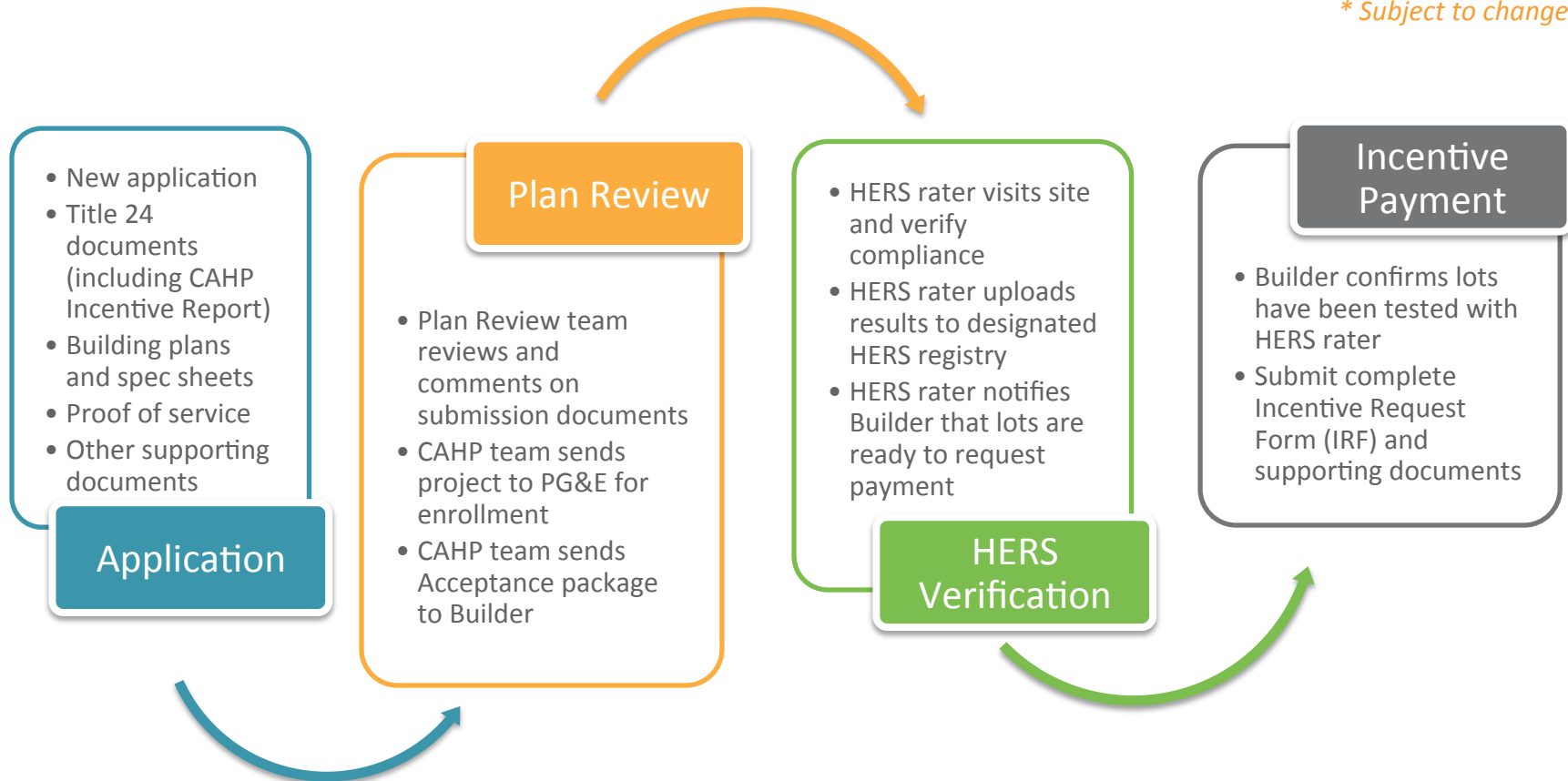
Remember – we are happy to help!
Feel free to contact us with your questions.



2014 CAHP Participation Process

Overall process remains similar to prior program cycle with the exception that a project must complete plan review before drywall is installed and HERS testing begins*.

** Subject to change*



Free Design Assistance

CAHP can coordinate with your project team to:

- Optimize energy savings and incentives
- Maximize home/building performance
- Exceed Title 24 standards
- Reach high-incentive bonus CAHP points

How to request design assistance:

- Engage early
- Contact Kevin Robison or Matthew Christie
- Receive ongoing design assistance during plan review



Thank you!

Matthew Christie

Program Manager

mchristie@trcsolutions.com

Michelle Waffle-Otero

Program Participation Coordinator

mwaffle@trcsolutions.com

Deborah Hayman

Program Application Coordinator

dhayman@trcsolutions.com

Kevin Robison

Plan Review Manager

krobison@trcsolutions.com

TRC's CAHP Website:

<http://cahp-pge.com>

(866) 352-7457

cahp@trcsolutions.com

